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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BLACKMAN, ROCHELLE ANN J

ART UNIT PAPER NUMBER

2851

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/628,947

Applicant(s)

MAY, GREGORY J.

Examiner

Rochelle Blackman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-35 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 35 is/are allowed.
 6) ☒ Claim(s) 1,2 and 4-34 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 12/27/04 & 4/5/05.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1, 2, and 4-35 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

The information disclosure statement filed December 12, 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Note: a copy of the foreign patent document EP 185138 A2 was not provided.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a secondary transmitter configured to project invisible light signals encoded to represent secondary information associated with said video images onto a second screen; and wherein said visible video images and said invisible light signals are transmitted through a common

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lens concurrently" in claim 35 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 9 is objected to because of the following informalities: the limitation, "one or more receivers" has already been recited in claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6-9, 11-14, 16-18, 21-25, 27-29, 30, and 32-34 and are rejected under 35 U.S.C. 102(b) as being anticipated by Toide et al. (U.S. Patent No. 5,739,875).

Regarding claim 1, Toide discloses a projection system (see FIGS. 33, 42, and 43), comprising: a projection device (see 3 of FIG.S 33, 42, and 43) configured to project visible video images onto a screen (see 4 of FIG. 33, 42, and 43); a secondary signal transmitter (see 33 of FIG. 33 and 43 or 46 of FIG. 42) configured to project

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invisible light signals onto said screen, said invisible light signals being reflected off of said screen to one or more receivers (see 34 of FIGS. 33, 35, 42, and 43) configured to receive and decode said reflected invisible light signals; and wherein said invisible light signals are encoded to represent secondary information associated with said video (see col. 21, lines 16-20).

Regarding claim 2, Toide discloses wherein said secondary information is audio information (also see col. 21, lines 16-20).

Regarding claim 4, Toide discloses wherein said receivers comprise personal headphone sets (see 31 of FIGS. 33 and 43) configured to receive and decode said invisible light signals into audibly-perceptible sounds.

Regarding claim 6, Toide discloses wherein said screen is a reflective surface (see 4 of FIGS. 33, 42, and 43).

Regarding claim 7, Toide discloses wherein said screen is a transfective surface (also see 4 of FIGS. 33, 42, and 43).

Regarding claim 8, Toide discloses wherein said secondary signal transmitter is configured to project a plurality of channels of invisible light signals onto said screen (see 33 of FIGS. 33-37 and 43 or 46 of FIGS. 38-40 and 42).

Regarding claim 9, Toide discloses further comprising one or more receivers (see 34 of FIGS. 33, 35, 42, and 43) configured to receive said invisible light signals projected onto said screen and to decode said invisible light signals into audibly-

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perceptible sounds; and wherein said receivers are equipped to be selectively configured by a user to decode one of said plurality of channels of invisible light signals into audibly-perceptible sounds at a given time (also see col. 21, lines 16-20).

Regarding claim 11, Toide discloses wherein said plurality of channels of invisible light signals represents different channels (the "different channels" are considered to be the different signals that are sent to the right speaker and left speaker of the "headphone sets" 31) of a single soundtrack (this is considered to be the audio or sound that matches the video signals projected) having a surround sound feature.

Regarding claim 12, Toide discloses wherein said plurality of channels of invisible light signals comprise polarized light signals (see 42 of FIGS. 37-40 and 42 - although not explicitly shown, the projection system is considered to have some sort of polarizer, since the polarization of light in projection optical systems is well known).

Regarding claim 13, Toide discloses wherein said plurality of channels of invisible light signals comprise modulated light signals (see 45 of FIGS. 34 and 36).

Regarding claim 14, Toide discloses wherein said invisible light signal comprises infrared light (see col. 21, lines 7-10).

Regarding claim 16, Toide discloses wherein said secondary signal transmitter comprises a light emitting diode (see 46 of FIGS. 38-40 and 42).

Regarding claim 17, Toide discloses wherein said secondary signal transmitter is positioned outside of said video projection device (see 42 of FIG. 33, 42, and 43).

Regarding claim 18, Toide discloses wherein said video projection device includes a lens (see 3 of FIGS. 33, 42, and 43) through which said video images are projected, and wherein said secondary signal transmitter is positioned inside of said video projection device and is configured to emit said invisible light signal through said lens (see 46 of FIGS. 39-42).

Regarding claims 21-25 and 27-29, the "method for presenting audio information to a video-viewing audience" is similarly met by the features and functions of the above-mentioned elements recited for the "projection system" of claims 1, 2, 4, 6-9, and 13, 14, and 16-18.

Regarding claims 30 and 32-34, the "method for watching and listening to an audio-visual presentation" is similarly met by the features and functions of the above-mentioned elements recited for the "projection system" of claims 1, 2, 4, 6-9, and 13, 14, and 16-18.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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1. Claims 5, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toide et al. (U.S. Patent No. 5,739,875) in view of Allen et al. (U.S. Patent No. 6,811,267).

Toide discloses the claimed invention except for wherein said receivers are “loudspeakers” configured to receive and decode said invisible light signals into audibly-perceptible sounds; wherein said video projection device includes a “digital micromirror device” having a plurality of micromirrors that each selectively reflects light from a primary light source through a lens”.

Allen teaches providing receivers that are loudspeakers (54a-b) configured to receive and decode said invisible light signals into audibly-perceptible sounds; wherein said video projection device includes a digital micromirror device (20, 36) having a plurality of micromirrors that each selectively reflects light from a primary light source (14) through a lens (38).

It would have been obvious to one ordinary skill in the art at the time the invention was made to provide the Toide reference with “loudspeakers”, as taught by Allen in order to provide audio more than one person viewing the video images, if headphone sets are not available for use and to provide the Toide with a “digital micromirror device”, as taught by Allen in order to modulate the nonvisible radiation to generate a nonvisible data stream (see col. 1, lines 24-25).

2. Claims 10, 26, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toide et al. (U.S. Patent No. 5,739,875) in view of Folio (U.S. Patent No. 6,483,568).

Toide discloses the claimed invention except for a plurality of channels of invisible light signals representing “alternative soundtracks associated with said video images projected onto said screen”; separate channels of invisible light signals representing “different soundtracks associated with a single video”; and “different persons viewing the same set of visually-perceptible light images listen to different soundtracks associated with said set of projected light images”.

Folio teaches providing a plurality of channels of invisible light signals (infrared signals transmitted by wireless transmitter 42a – see col. 5, lines 52-57) representing alternative soundtracks (alternate languages for a movie - see function of 76a in col. 7, lines 43-46) associated with said video images projected onto said screen; separate channels of invisible light signals (infrared signals transmitted by wireless transmitter 42a – see col. 5, lines 52-57) representing different soundtracks (alternate languages for a movie – also see function of 76a in col. 7, lines 43-46) associated with a single video; and different persons (different movie patrons) viewing the same set of visually-perceptible light images listen to different soundtracks (alternate languages for a movie – also see function of 76a in col. 7, lines 43-46) associated with said set of projected light images.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the “projection system”/ “method for presenting audio information to video-viewing audience”/ “method for watching and listening to an audio visual projection device”/ “audio visual projection system” of the Toide reference with the salient features of Folio in order to provide a system and method that can efficiently

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and economically provide supplemental audio content to a viewer or viewers (see col. 2, lines 30-34).

3. Claim 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toide et al. (U.S. Patent No. 5,739,875) in view of Allen et al. (U.S. Patent No. 6,727,935).

Toide discloses the claimed invention except that infrared light is used instead of "ultraviolet light". Allen shows that that the use of ultraviolet light as an equivalent invisible light is known in the art (see col. 5, lines 45-51). Therefore, because these two invisible lights were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the "ultraviolet light" for the infrared light.

Allowable Subject Matter

1. Claim 35 remains allowed.

2. Claim 35 has been found to be allowed because the prior art of record either alone or in combination neither discloses nor makes obvious the projection system with the feature of a "secondary signal transmitter to project invisible light signals encoded to represent secondary information associated with said video images onto a second screen" in combination with the other particular combination of features recited in the claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB

A handwritten signature in cursive script, appearing to read "Judy Nguyen", is positioned above the printed name.

JUDY NGUYEN
SUPERVISORY PATENT EXAMINER